Title (en)

WIRELESS POWER TRANSMISSION SYSTEM

Title (de)

SYSTEM ZUR DRAHTLOSEN STROMÜBERTRAGUNG

Title (fr)

SYSTÈME DE TRANSMISSION D'ÉNERGIE SANS FIL

Publication

EP 4327435 A1 20240228 (EN)

Application

EP 22791268 A 20220421

Priority

- IL 28259921 A 20210422
- US 202117500597 A 20211013
- IL 2022050412 W 20220421

Abstract (en)

[origin: US11444491B1] A system for safe transmission of an RF electromagnetic power beam to a receiver for conversion into electric power. The receiver has an antenna array for receiving the RF beam and electrical circuitry to receive a corresponding RF electrical current from the antenna array. The circuitry includes a converter for generating DC current from the RF electrical current, and includes at least one component that reflects part of the RF current back towards the antenna array. This converts the reflected portion of the RF electrical current into a retransmitted RF electromagnetic beam having the same frequency as the RF electromagnetic power beam, and is directed back towards the transmitter. The receiver monitors the reflected RF current, and transmits a proportional signal back to a controller. The controller reduces the transmitted power beam if its interference with the retransmitted beam would generate a field intensity above a safe level.

IPC 8 full level

H02J 50/80 (2016.01); **H02J 7/00** (2006.01); **H02J 7/04** (2006.01); **H02J 50/20** (2016.01); **H02J 50/40** (2016.01); **H02J 50/60** (2016.01); **H02J 50/90** (2016.01); **H04B 5/00** (2024.01)

CPC (source: EP IL US)

H02J 7/04 (2013.01 - IL); **H02J 50/20** (2016.02 - EP IL); **H02J 50/23** (2016.02 - US); **H02J 50/27** (2016.02 - US); **H02J 50/40** (2016.02 - IL); **H02J 50/402** (2020.01 - US); **H02J 50/60** (2016.02 - IL); **H02J 50/80** (2016.02 - EP IL US); **H02J 50/90** (2016.02 - EP IL); H01Q 3/36 (2013.01 - US); H02J 7/04 (2013.01 - EP); H02J 50/27 (2016.02 - EP); H02J 50/402 (2020.01 - EP); H02J 50/90 (2016.02 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

US 11444491 B1 20220913; EP 4327435 A1 20240228; IL 282599 B 20220201; US 2024195227 A1 20240613; WO 2022224258 A1 20221027

DOCDB simple family (application)

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